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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,895	02/13/2004	Masashi Sugihara	N9460.0012/P012-A	6101
24998	7590	08/10/2004	EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP			FRANK, ELLIOT L	
2101 L STREET NW			ART UNIT	
WASHINGTON, DC 20037-1526			PAPER NUMBER	
			2125	
DATE MAILED: 08/10/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/777,895

Applicant(s)

SUGIHARA ET AL.

Examiner

Elliot L Frank

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 12-17 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. 10/444,955.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) \*  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02/13/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/444,955 filed on 27 May 2003.

### *Specification*

2. The following objections to the specification are the same issues noted in the first office action sent regarding parent application 10/444,955.
3. The abstract of the disclosure is objected to because it is not narrative and contains the purported merits of the invention. The abstract should be a narrative summary of the invention's functionality, 50-150 words in length. Correction is required. See MPEP § 608.01(b).
4. The disclosure is objected to because of the following informalities:
  - a. Page 16, line 1: The use of the word "pace" is not understood in this context. The examiner believes that the word should be corrected to "place".
  - b. Page 32, line 17: The use of the phrase "preludial-level" is not understood in this context.
  - c. Page 38, line 25: The use of the phrase "preludial-level" is not understood in this context.
  - d. Appropriate correction is required.

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5. The errors noted by the examiner may not constitute all of the aberrations in the specification. The applicant is encouraged to thoroughly review the specification and correct any informality encountered.

### ***Claim Objections***

6. Claim 12 is objected to because of the following informalities: There is a typographical error in line 11 of the claim. The word "aid" should be corrected to "said". Appropriate correction is required.
7. Claims 14 and 15 use the phrase "test-use wireless signals". This term should be corrected to "a test signal" or a similar term.

### ***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 12-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - a. Claim 12 recites the limitation "said plurality of devices" in line 6 of the claim. There is insufficient antecedent basis for this limitation.
  - b. Claim 12 includes the following limitation: " a receiver for receiving waves present in a portion of the in-panel space of aid [sic] power distribution panel switch gear, or at the boundary section between the

power distribution panel switch gear and the external space thereof, or in the vicinity of the power distribution panel switchgear..."

- i. These limitations seem to define an area of the switch gear panel, but are deemed indefinite for not clearly defining the metes and bounds of these areas.
  - ii. "The in-panel space" and "the boundary section" have not been previously defined in the claim and are not well known in the art.
  - iii. The word "vicinity" is indefinite because it does not adequately describe where the receiver resides in relation to the panel.
  - iv. For the sake of examination this limitation has been broadly interpreted to maintain that the panel switch gear has a wireless receiver associated with the panel for receiving wireless signals.
- c. Claim 12 includes in the following limitation: "a diagnostic judgment device for diagnosing whether the control and monitoring signals of the wireless waves which have been received by said receiver are within an operating range acknowledged to be normal operating range."
- i. It is not clear from this limitation whether the diagnostic judgment device is analyzing the information content of the waves (e.g. control values being transmitted to the panel switch gear) or at the condition of the waves themselves. Therefore, this limitation is deemed to be indefinite.
  - ii. For the sake of examination this limitation has been interpreted as having the diagnostic judgment device looking at the

condition (e.g. strength and/or deterioration) of the waves themselves.

- d. Claim 13 recites the limitation: "wherein said diagnostic device detects precursory indications of abnormality or deterioration". Per the rejection to claim 12, this limitation is held to be indefinite for being unclear as to what "precursory indications" of the signal or wave it analyzes.
  - e. Claim 13 recites the limitation "the response relationship between signals and the amounts of change thereof" starting in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.
  - f. Claims 14 and 15 depend from claim 12, and are rejected for containing the same deficiencies.
  - g. Claim 16 is rejected for failing to further limit the claim from which it depends. The claim begins by stating that the "diagnostic device is such..." but then finishes by including a limitation relating to a physical aspect of the distribution panel. It is not clear how this limitation further limits the diagnostic device.
  - h. Claim 17 recites the limitation "the value-judging market price" in line 4 of the claim and "the degree of usefulness" in line 5 of the claim.  
  
There is insufficient antecedent basis for this limitation in the claim.
10. The examiner has provided a number of examples of the claim deficiencies in the above rejections. The list of rejections may not be all-inclusive. Applicant

should refer to these rejections as examples of deficiencies and should make all the necessary corrections to eliminate the 35 USC § 112 second paragraph problems and place the claims in a proper format.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 12, 13 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Bilas et al. (USPN 5,231,565 A) in view of Azzaro et al. (USPN 6,487,478 B1).

The requirements of the aforementioned claims, as well as the relevant citations in Bilas et al. are as follows:

12. (Original) An equipment diagnostic system (column 23, lines 20-33 wherein diagnostic features are described) comprising;

a power distribution panel switch gear (column 1, lines 5-10);

a controller from which commands relating to the operation and monitoring of said plurality of device to be operated are output to said power distribution panel switch gear and the output commands are used to communicate with said power distribution panel switch gear through wireless communication (column 4, lines 1-32);



a receiver for receiving wireless waves present in a portion of the in-panel space of aid power distribution panel switch gear, or at the boundary section between the power distribution panel switch gear and the external space thereof, or in the vicinity of the power distribution panel switch gear (column 15, lines 18-33), and

[a diagnostic judgment device for diagnosing whether the control and monitoring signals of the wireless waves which have been received by said receiver are within an operating range acknowledged to be normal operating range].

16. (Original) The equipment diagnostic system according to Claim 12, wherein said diagnostic judgment device is such that when said power distribution panel switch gear is a metal-enclosed power distribution panel, the metallic plate in any section of the power distribution panel is made of a material which enables the penetration of in-panel wireless waves (Obvious in view of column 4, lines 1-32. It would have been obvious to one of ordinary skill in the art that a switch gear panel featuring wireless communication would have to be made of a material permeable to wireless transmissions in order to facilitate communication between an interior receiver and an outside controller).

While Bilas et al. is a wirelessly controlled switch gear panel including some diagnostic features (column 23, lines 20-33), it does not specifically read on the additional requirements of claims 12 and 13 wherein a diagnostic judgment device for monitoring a signal operating range is required.

Azzaro et al., analogous to Bilas et al. in that both systems are used in industrial monitoring and control (Azzaro et al., column 1, lines 8-14), reads on the additional requirements of claim 12 at column 4, lines 19-36.

The requirements of claim 13 are read as follows:

13. (Original) The equipment diagnostic system according to Claim 12, wherein said diagnostic judgment device detects precursory indications of abnormality or deterioration by analyzing the operation and monitoring signals existing under the normal operating conditions of said power distribution panel switch gear and judging whether the response relationship between signals and the amounts of change thereof with the elapse of time have deviated from a normal range (column 10, lines 21-64, wherein a process for determining if a signal response occurs within a predetermined limit is described).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the features of Azzaro et al. into the Bilas et al. system to have provided real time performance data and fault monitoring in order to find and repair potential problems before they cause significant down time (Azzaro et al., column 2, lines 3-12).

13. Claims 14 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Bilas et al. (USPN 5,231,565 A) in view of Azzaro et al. (USPN 6,487,478 B1) as applied to claim 12 above, and further in view of Stevens et al (5,612,960 A).

Claims 13 and 14 depend from claim 12. Claim 12 is obvious in view of the Bilas et al. and Azzaro et al. combination.

While the previously combined references make obvious a wirelessly controlled switch gear panel with signal diagnostic features, they do not read on the additional requirements of claims 14 and 15 as follows:

14. (Original) The equipment diagnostic system according to Claim 12, wherein said diagnostic judgment device has a transmitter which can transmit test-use wireless signals in a single frequency band in addition to the wireless wave signals used in the in-panel space of said power distribution panel switch gear under the normal operating conditions thereof.

15. (Original) The equipment diagnostic system according to Claim 12, wherein said diagnostic judgment device has a transmitter which can transmit test-use wireless signals in a non-single frequency band in addition to the wireless wave signals used in the in-panel space of said power distribution panel switch gear under the normal operating conditions thereof.

Stevens et al., a generally applicable wireless communications system (column 1, lines 5-10), makes obvious the additional requirements of claims 14 and 15 at column 2, lines 10-37, wherein the Stevens et al. system uses specific test signals sent to remote stations in order to determine the link quality between the host station and a remote station.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the features of Stevens et al. into the previously combined references to have created a system that permitted the

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assessment of wireless communication quality between two stations in a network (Stevens et al., column 1, line 55-column 2, lines 7).

14. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilas et al. (USPN 5,231,565 A) in view of Azzaro et al. (USPN 6,487,478 B1) as applied to claim 12 above, and further in view of Takechi (US 2002/0004758 A1).

Claim 17 depends from claim 12. Claim 12 is obvious in view of the Bilas et al. and Azzaro et al. combination.

While the previously combined references make obvious a wirelessly controlled switch gear panel with signal diagnostic features, they do not read on the additional requirements of claim 17 as follows:

17. (Original) The equipment diagnostic system according to Claim 12, wherein, after information has been acquired from said power distribution panel switch gear, said diagnostic judgment device stores the information into a database and outputs the information to a plant operation undertaker according to the value-judging market price indicating the degree of usefulness of the corresponding information.

Claim 17 is obvious in view of the well-known teaching in Takechi, page 1, paragraphs 0003-0004, wherein it describes that the processing of assigning value to information is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Takechi into the

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previously combined references to have created a system that allowed a user to confirm the value of information by determining the factuality and certainty of the information Takechi, page 1, paragraph 0002).

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2003/0132753 A1 – Lavoie et al. – Wireless communication to switch gear

US 2003/0191589 A1 – Fletcher et al. – Wireless communication to switch gear

USPN 5,748,079 A – Addy – Control system with signal strength monitoring

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elliot L Frank whose telephone number is

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(703) 305-5442. The examiner can normally be reached on M-F 7-4:30, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ELF  
5 August 2004

  
ALBERT W. PALADINI  
PRIMARY EXAMINER